

Name:

Date:

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**PART A** In the space on the left, write the letter of the term or phrase which **best** completes the statement or answers the question (1 mark each).

- \_\_\_\_ 1. The layer of the Earth that is liquid is the ...  
a. Crust  
b. Mantle  
c. Outer core  
d. Inner core
- \_\_\_\_ 2. The action of one tectonic plate diving below another one is called ...  
a. Slab pull  
b. Mantle convection  
c. A Fault  
d. Subduction
- \_\_\_\_ 3. The waves that are first to arrive after an earthquake are ...  
a. L-waves  
b. P-waves  
c. S-waves  
d. F-waves
- \_\_\_\_ 4. The lithosphere is made up of ...  
a. The inner and outer core  
b. The crust and uppermost mantle  
c. The outer core and the mantle  
d. The crust only
- \_\_\_\_ 5. An area where molten rock rises to the Earth's surface is known as ...  
a. A hot spot  
b. An earthquake  
c. A fault  
d. A colliding ridge
- \_\_\_\_ 6. Which type of plate boundary interactions typically result in faults forming?  
a. Transform plate boundaries  
b. Converging plate boundaries  
c. Divergent plate boundaries  
d. Static plate boundaries

- \_\_\_ 7. How many major tectonic plates are there?  
a. 1  
b. 2  
c. 12  
d. 20
- \_\_\_ 8. The Earth's thickest layer is the ...  
a. Crust  
b. Mantle  
c. Outer core  
d. Inner core
- \_\_\_ 9. Mantle convection occurs in the ...  
a. Atmosphere  
b. Lithosphere  
c. Asthenosphere  
d. Inner core
- \_\_\_ 10. What type of plate convergence typically produces volcanic island arcs?  
a. Oceanic-oceanic plate convergence  
b. Transform plate boundaries  
c. Oceanic-continental plate convergence  
d. Continental-continental plate convergence

**PART B** In the space provided mark each of the following as true or false. (1 mark each)

- \_\_\_ 1. The epicentre is the location inside the Earth where an earthquake starts.
- \_\_\_ 2. S-waves move perpendicularly to the direction of wave travel.
- \_\_\_ 3. Magnetic striping is observed at a spreading ridge because of magnetic reversal.
- \_\_\_ 4. The inner core is liquid.
- \_\_\_ 5. Mantle convection is one of the forces behind tectonic plate movement.
- \_\_\_ 6. Transform boundaries involve plates moving in the same direction.
- \_\_\_ 7. Faults typically occur at transform plate boundaries.
- \_\_\_ 8. A spreading centre that occurs in the ocean is strike-slip fault.
- \_\_\_ 9. Fossils in Antarctica suggested it was once in a more tropical climate.
- \_\_\_ 10. Converging continental plates often produce volcanic islands.

**PART C** In the space provided, match each term or phrase with the best definition. (1 mark each)

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|--------------------------|--|
| ___ 1. Diverging plates  | A. The action of one tectonic plate pushing underneath another.  |
| ___ 2. Subduction        | B. The point on Earth directly above where an earthquake starts. |
| ___ 3. Focus             | C. An area where molten rock rises to the Earth's surface.       |
| ___ 4. Converging plates | D. Tectonic plates that are sliding past each other.             |
| ___ 5. Epicentre         | E. Tectonic plates that are spreading apart.                     |
| ___ 6. Transform plates  | F. Cracks in the lithosphere where magma reaches the surface.    |
| ___ 7. Mantle convection | G. Tectonic plates that are colliding.                           |
| ___ 8. Ridge push        | H. The action of cooling magma wedging plates apart.             |
| ___ 9. Hotspot           | I. Involves currents of rising and cooling magma.                |
| ___ 10. Volcano          | J. The location inside the Earth where an earthquake starts.     |

**PART D** Each of the following questions requires a short answer.

1. Provide two reasons that scientists believe that Antarctica used to be situated in a tropical area.  
(2 marks)
  
  
  
  
  
  
  
  
  
  
2. Describe how convection currents, ridge push and slab pull keep tectonic plates in motion.  
(3 marks)

3. Describe the three types of waves that occur during an earthquake. Be sure to include the speed and how the wave travels in your description. (6 marks)
4. Describe what happens when an oceanic and continental plate collide. (3 marks)
5. Name the three major types of plate convergence. (3 marks)
6. Name three pieces of evidence that support the idea of sea-floor spreading (3 marks)